

REMARKSACKNOWLEDGEMENT OF EXAMINER'S AMENDMENT

Applicant acknowledges that the Examiner has made an amendment to the application upon authorization given to him in a telephone interview of 3 October 2003 and that the amendment is acceptable.

AMENDMENT TO SPECIFICATION

Amendment to the specification is submitted to update the status of U.S. Patent Application No. 09/282,424, which is a parent application of the present application and is now issued as U.S. Patent No. 6,381,559, and U.S. Patent Application No. 08/872,586 filed on June 10, 1997 and is now issued as U.S. Patent No. 5,983,162. This amendment does not add new matter to the merit of the application.

REJECTION OF CLAIMS 1, 2, 4, 7-9 and 13 UNDER THE NONSTATUTORY
DOUBLE PATENTING:

The Examiner has stated that claims 1, 2, 7 and 13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 7 and 8 of U.S. Patent No. 5,983,162. The Examiner has also stated that claim 2, 4, 8 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 7 and 8 of U.S. Patent No. 5,983,162 in view of Treybig et al. (U.S. Patent No. 3,747,056). The rejected claims were amended as outlined below and put in condition for allowance.

OBJECTION OF CLAIMS 3, 5, 6, 10-12 and 14-20:

The Examiner has stated that claims 3, 5, 6, 10-12 and 14-20 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The rejected claims were amended as follows:

Original claim 1 has been amended to include the limitations of claims 2 and 3; a new independent claim 21 has been written by combining original claims 1, 2 and 5; claim 6 now depends upon the new claim 21; original claim 7 has been amended to include the limitations of claims 7, 8 and 10; a new independent claim 22 has been written by combining original claims 7, 8 and 11; claim 12 now depends upon the new claim 22; original claim 13 has been amended to include the limitations of claim 15; a new independent claim 23 has been written by combining original claims 13 and 14; a new independent claim 24 has been written by combining original claims 13 and 18; claims 19 and 20 now dependent on the new claim 24.

Applicant asserts that the newly added claims are supported by the specification and that all the claims are now put in conditions for allowance.

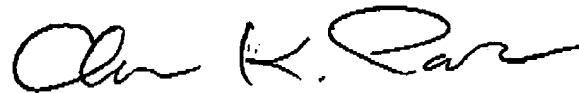
It is respectfully requested that the application as amended be allowed and such favorable consideration is courteously solicited.

The Commissioner is authorized to charge a fee of \$110 for extension for response within first month. The Commissioner is also authorized to charge any additional fees or credit any

overpayment pursuant to 37 CFR §1.16 or 1.17 to Deposit Account
No. 14-0116.

Should any unresolved issues remain to the allowance of the
application, the Examiner is invited to contact Chan K. Park at
(301) 286-7351.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Chan K. Park", with a stylized, cursive script.

Chan K. Park

Agent, Reg. No. 48,175

NASA Case No. GSC 13,817-4

Certificate of Transmission

I hereby certify that this Response to First Office Action is being facsimile transmitted to the United States Patent and Trademark Office (703 872 9306) on: February 27, 2004.

A handwritten signature in dark ink, appearing to read 'Chan K. Park', is written over a horizontal line.

Chan K. Park